CHAPTER 1

What is management?

CHAPTER OUTLINE

MANAGEMENT: AN OVERVIEW
Management defined
The management process

WHAT MANAGERS ACTUALLY DO
Work methods
Managerial roles

MANAGERIAL KNOWLEDGE, SKILLS AND PERFORMANCE
Knowledge base
Key management skills
Performance

MANAGERIAL JOB TYPES
Vertical dimension: Hierarchical levels
Differences among hierarchical levels
Horizontal dimension: Responsibility areas

THE BIRTH OF MANAGEMENT IDEAS

PRECLASSICAL CONTRIBUTORS
Assessing preclassical contributors

CLASSICAL VIEWPOINT
Scientific management
Bureaucratic management
Administrative management

BEHAVIOURAL VIEWPOINT
Early behaviourists
Hawthorne studies
Human relations movement
Behavioural science approach

QUANTITATIVE MANAGEMENT VIEWPOINT
Management science
Operations management
Management information systems

CONTEMPORARY VIEWPOINTS
Systems theory
Contingency theory
The total quality philosophy
Knowledge management and the learning organisation
AFTER STUDYING THIS CHAPTER, YOU SHOULD BE ABLE TO:

- Explain four management functions and their interrelationships.
- Identify other major management process elements.
- Describe three common managerial work methods and their ten major roles.
- Delineate three major managerial skill types.
- Distinguish between effectiveness and efficiency in regard to organisational performance.
- Explain how managerial jobs differ by hierarchical level and responsibility area.
- Understand pre-classical contributions to the field of management.
- Explain major approaches within the classical viewpoint of management.
- Describe major developments contributing to establishing the behavioural viewpoint.
- Explain major approaches within the quantitative management viewpoint.
- Discuss the relevance of systems theory and contingency theory.
- Understand emerging management practices such as total quality management, organisational learning and knowledge management.
ceoforum.com.au: Once the board had agreed to go ahead with the new business, how was the go-live date determined? What were the major considerations and/or constraints?

Alan Joyce: There were actually two key dates: 25 May 2004 which was our operational launch when we had our first flight, and 25 February which was our commercial launch. Our operational launch date determined the commercial launch date, as we needed to allow three months to give us time to make our sales.

The date of the commercial launch was also determined by the time we needed to build our distribution systems. We take about 80 per cent of our bookings directly across the web, and an even greater percentage at launch, so we had to build that software, as well as linking into the global reservation systems used by travel agents. Other issues were that we needed time to launch and establish the brand from scratch, to make sure we got those initial sales, and we also had to conduct reasonably complex commercial negotiations with the airports.

ceoforum.com.au: Why was speed of market entry so important? Do you or did you believe, for instance, that there was the possibility other players may also enter the market if you were slower? Aren’t the barriers to entry simply too great for that?

AJ: There is very much a general background issue in the aviation industry, that, wherever there is a profitable market opportunity, there are plenty of people who would like to get involved. Our own market analysis had convinced us that there were real opportunities in the leisure market, both domestically and internationally so, if we could see those, why couldn’t some others?

The barriers to entry have, in fact, got lower. Airports, for instance, have more available slots than they had years ago. There are a lot of new and second-hand aircraft that are out there and can be purchased. The Internet has simplified distribution systems, so that aspect, too, is less formidable than it was.

ceoforum.com.au: In attempting to achieve that quick market entry, did you see it simply as a resourcing issue?

AJ: It was a resourcing issue, but it was also a capability issue. We did bring in outsiders where we needed them, not necessarily from the airline industry. The person who oversaw the set-up of all our distribution systems, for example, came from Boston Consulting Group. Our head of HR, on the other hand, had worked with many airlines across the world, particularly with Southwest airlines in the US, where they had had good experience with the rapid recruitment philosophy of ‘recruit for attitude, train for skill’ that we wanted to implement. Other key members came from Qantas, such as our head of network planning and revenue management, and other airlines, especially Impulse. Around half of the management team came from Qantas businesses, the rest came from outside.

‘We made the people who put up the original numbers accountable for delivering against them …’
ceoforum.com.au: Were there other important decisions you took in terms of assembling your team to implement the market entry plan?

AJ: We also decided that the core team who developed the initial business plan for the airline would also be heavily involved in the implementation of that plan. We had spoken to a number of full-service airlines who had set up low-cost airlines, and one of the things they told us was that, if you split the planning and implementation teams, there was the risk of too much ‘reinvention of the wheel’. Another danger was that the central premise of the business for the planners—be the lowest cost provider—would get watered down during the implementation, as people might claim that the budgets they were assigned simply weren’t enough. Instead, we made the people who put up the original numbers accountable for delivering against them! In general, making the planning team core to the implementation ensured that there was very strong ownership of the plan going forward.

ceoforum.com.au: You would well know that the record of full-service airlines successfully operating low-cost airlines is not great. How did you go about managing this very large strategic risk?

AJ: We did spend a lot of time examining precedents and felt that there were two main dangers: cannibalising your full-service airline and just not executing the low-cost airline in a wholehearted manner. A good example of cannibalisation was Go Airlines, set up by British Airways, while Delta Express is an example of a compromised low-cost implementation.

The cannibalisation risk can be mitigated in a number of ways: coordination of networks so that the products don’t compete too much on exactly the same routes, coordination of pricing, and making sure your brand is targeted at different segments. One bonus of entering the market was that the perception of Qantas was elevated, as the contrast between a full-service and a low-cost position become more apparent. The compromised implementation risk is really about resources and commitment, so we needed to make sure those things were right as well.

ceoforum.com.au: You were clearly well-informed about many of the failed implementations of low-cost airlines that preceded you. What is your general view of what can, and can’t, be learnt from these types of failure case studies?

AJ: I think you have to examine failures, but it’s at least as important to be looking at successes as well. We spent at least an equal amount of time looking at successful precedents, such as Ryanair for efficiency, Southwest for recruitment, Jet Blue for their use of technologies and so on. The challenge, of course, is to translate those lessons to the unique market place we are operating in today, rather than just simply imitate something unthinking.

We’ve also had other airlines come in and look at our operation, so it goes two ways. Even when they have come to talk to you, you invariably learn a lot in those discussions.

ceoforum.com.au: Recruiting a lot of people quickly to fill the different customer service roles across the new company must also have been a significant business risk. How did you go about that?

AJ: Whether we would get enough of the right people in the time we needed to was, in fact, one of our major worries. We did have a core of around 600 people from Impulse, but we are at 1400 people now, and we expect to be up well over 2000 in the next few years. So this issue is an ongoing one for us.

We did take the attitude ‘hire for attitude, train for skill’, so we didn’t necessarily always want airline people—we wanted people who would be good in customer service. We wanted people who were very energetic and customer-focused, from all ages and ethnic groups. Unlike our competitors, for instance, over half of our customer service people are over 35 years of age.

ceoforum.com.au: That work force demographic is not really what many people would have expected from a new airline, based on the Virgin precedent. Why did you do that?

AJ: It was very much driven by us wanting to, first and foremost, get people with the right attitude. Young people may not always have the right attitude, whereas older people may well have it. We decided we wanted friendly people, not necessarily people who might be younger, better looking, but also ruder!

ceoforum.com.au: What were the major surprises of the launch, if any?

AJ: Probably the biggest surprise was the reaction on the day of the commercial launch when tickets first went on sale. We expected to take thousands of bookings on the first day—we ended up taking over 100,000.

This actually created some challenges for the computer infrastructure running our reservation systems. We originally had four servers running the reservations system, but, once we saw the reaction on the first day, our distributors based in Salt Lake City, Utah worked overnight so that we had eleven servers available the next day.

‘You have to examine failures, but it’s at least as important to be looking at successes as well ...’
Were there any surprises that were more negative in nature? Were there things that, in hindsight, you would have done better?

AJ: One issue we should have communicated better on was the 5 minute close-off. Because both airlines at the time had a policy that you could present for your flight up to 15 minutes before a flight, some of our customers naturally assumed that would apply to Jetstar flights. In fact, we had a 30 minute close-off, something that was essential if we were to achieve our lowest cost position. We needed to allow enough time for the check-in staff to go down to the boarding gate, do all the flight reconciliation and so on. We could have communicated better about that to our customers, particularly in regional areas where there had not been much of a history of airlines enforcing this type of close-off.

What are the two or three things you believe a CEO needs to focus on to achieve speed of execution?

AJ: You need to have a strong vision of what you want to achieve, but you need to keep it general enough to allow your people to work out the details as you go along. It’s very easy to get bogged down in the details of planning. For us, the vision was as simple as being the lowest cost carrier in Australia, and that can drive the detail of implementation.

It’s also important that everyone have a clear understanding of both what they are expected to deliver on—the key result areas and performance indicators—and how they are expected to deliver, which is about behaviour. We’ve all seen managers who can deliver results, but the way they go about getting them just causes more problems longer-term.

Communication underlies all this. Given we have 1400 staff, and many contractors spread across the country, getting clear messages through to all the staff is an ongoing challenge. It’s also very enjoyable—when I fly myself, for instance, it’s good spending time with the staff in the air and on the ground, so my travel time is not really down time! I actually find this contact with staff very energising, so it is one of the real pleasures of the role.

In this book, we highlight several critical managerial themes. The current chapter overviews the basic processes of management. What managers actually do is discussed by describing their work methods and the roles guiding their actions. We consider the knowledge base and skills needed by managers. We also explore two major dimensions along which managerial jobs differ, and we consider how, at different management levels, the entrepreneurial role fosters innovation.

New management approaches normally emerge from a foundation of established ideas, as well as an awareness of the shortcomings of those ideas. For this reason, we explore the birth of management science. We consider the contributors of some pre-classical pioneers, classical management thinking and ideas drawn from the behavioural, quantitative and contemporary perspectives.

Management: An overview

An organisation is two or more persons engaged in a systematic effort to produce goods or services. We deal with organisations when we come to class, bank money, buy clothes or rent a movie. Organisations impact indirectly on our lives through their products (Schermerhorn 2002).

Management defined

Management is the achievement of organisational goals through the planning, organising, leading and controlling functions. Management is an ongoing activity, entailing goal attainment and knowing how to carry out management’s major functions. These functions are crucial to effective management, and provide the framework for this book (Carroll & Gillen 1987; Jones & George 2003). Figure 1.1 reviews these four functions.
Planning
Planning involves goal setting and deciding on the plans, actions and strategies that will achieve those goals.

Organising
Organising is the allocation and arrangement of resources to implement plans successfully.

Leading
Leading is influencing others to engage in the work behaviours necessary to reach organisational goals. Leading includes communicating, outlining a vision, giving direction and motivating others.

Controlling
Controlling regulates activity to ensure actual performance conforms to expected standards and goals (Newman 1975).

The four management functions help organisations to convert inputs and resources into outputs efficiently and effectively. The management of these functions is influenced by the external and internal environments in which the firm operates. Other contextual aspects, such as firm size, also impact on the process.

The management process
Carroll and Gillen (1987) reviewed major studies of managerial work and identified key elements in the management process. As Figure 1.2 shows, work methods and managerial roles shape management's core functions. A manager's knowledge base and skills also contribute to how planning, organising, leading and controlling are performed.
Organisations can be large or small, manufacturing or service, profit making or not-for-profit (Lachman 1985). A 
not-for-profit organisation (or a non-profit organisation) has its main purposes centred on issues other than profit.

Mintzberg (1980), in one of the most significant studies of managers, followed several senior managers, 
recording everything they did.

**Work methods**

Mintzberg (1980) found managers were not as reflective as popularly supposed; nor were they 
systematic planners who spent quiet office time reading formal reports. Instead, his findings showed 
three common features.

- **Unrelenting pace.** Mintzberg’s managers arrived at the office in the morning and started work that 
  continued until they left at night. Managers took coffee and lunch breaks during formal and 
  informal meetings. Managers handled an average of 36 pieces of mail daily, as well as other written 
  and verbal communications. Subordinates wanting to speak with the boss occupied managers’ spare 
  time.

- **Brevity, variety and fragmentation.** Managers handled a range of issues across their day. Activities 
  were brief; about half those Mintzberg recorded took less than nine minutes, and only 10 per cent 
  took more than an hour. Telephone conversations were short, averaging six minutes. Work sessions 
  at a manager’s desk and informal meetings averaged 15 and ten minutes respectively. Managers were 
  continually interrupted by telephone calls and subordinates ‘dropping by’. Many managers saved 
  their major brainwork for time beyond the normal workday.

- **Verbal contacts and networks.** Managers in Mintzberg’s study strongly preferred verbal 
  communication to written communication. They relied heavily on networks—co-operative 
  relationships with others that help the manager to function effectively.

**Implications of Mintzberg’s findings**

Although Mintzberg’s study focused on top-level managers, his findings apply to managers at many 
levels (Kurke & Aldrich 1983; Gibbs 1994). All managers need to develop a network of contacts if they 
are to have influence and operate effectively (Luthans 1988).
Managerial roles

Mintzberg (1973, 1980) also categorised managers’ various activities into ten roles. A role is an organised set of behaviours associated with a particular office or position (Mintzberg 1980). Specific positions may entail multiple roles.

Mintzberg grouped the ten managerial roles into interpersonal, informational and decisional roles (see Table 1.1). Interpersonal roles involve developing and maintaining positive relationships with significant others. Informational roles relate to receiving and sending information. Decisional roles involve making organisation decisions.

At first, Mintzberg’s findings do not match the view that management is planning, organising, leading and controlling. However, Mintzberg’s managerial roles give insights into what managers do during their workday. However they do not explain why managers engage in those roles. Management functions help managers channel their role behaviours towards goal achievement (Kotter 1982). A managerial role has little meaning if it is not linked to a management function. Managers undertake managerial roles to plan, organise, lead and control (Kotter, 1982).

Managerial knowledge, skills and performance

Managers need a knowledge base and management skills to act out roles and plan, organise, lead and control. We consider these essential elements of the management process and their relationship to performance.

Knowledge base

Managers may have problems if they lack a relevant, extensive knowledge base. This knowledge base can include detail on an industry, its technology, company policies, practices, goals, plans, culture, key organisation member personalities, and significant suppliers and customers. Kotter (1982) found managers could accomplish much in short time periods because they based their actions on small bits of information. Extensive knowledge allowed them to attach appropriate meaning to these information fragments.

<table>
<thead>
<tr>
<th>TABLE 1.1</th>
<th>MINTZBERG’S TEN MANAGERIAL ROLES</th>
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<tbody>
<tr>
<td><strong>ROLE</strong></td>
<td><strong>DESCRIPTION</strong></td>
</tr>
<tr>
<td>Interpersonal</td>
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<tr>
<td><strong>Figurehead</strong></td>
<td>Performs symbolic duties of a legal or social nature</td>
</tr>
<tr>
<td><strong>Leader</strong></td>
<td>Builds relationships with subordinates and communicates with, motivates and coaches them</td>
</tr>
<tr>
<td><strong>Liaison</strong></td>
<td>Maintains networks of contacts outside work unit who provide help and information</td>
</tr>
<tr>
<td>Informational</td>
<td></td>
</tr>
<tr>
<td><strong>Monitor</strong></td>
<td>Seeks internal and external information about issues affecting organisation</td>
</tr>
<tr>
<td><strong>Disseminator</strong></td>
<td>Transmits information internally obtained from either internal or external sources</td>
</tr>
<tr>
<td><strong>Spokesperson</strong></td>
<td>Transmits information about the organisation to outsiders</td>
</tr>
<tr>
<td>Decisional</td>
<td></td>
</tr>
<tr>
<td><strong>Entrepreneur</strong></td>
<td>Acts as initiator, designer and encourager of change and innovation</td>
</tr>
<tr>
<td><strong>Disturbance handler</strong></td>
<td>Takes corrective action when organisation faces important, unexpected difficulties</td>
</tr>
<tr>
<td><strong>Resource allocator</strong></td>
<td>Distributes resources of all types including time, funding, equipment and human resources</td>
</tr>
<tr>
<td><strong>Negotiator</strong></td>
<td>Represents the organisation in major negotiations affecting the manager’s areas of responsibility</td>
</tr>
</tbody>
</table>

Source: Based on Mintzberg (1973, 1980).
Key management skills

A skill is the ability to engage in a set of related behaviours, leading to a desired performance level (Boyatzis 1982). Managers need technical, human and conceptual skills (Katz 1974).

**Technical skills**

Technical skills involve an understanding of and a proficiency in a specialised field. For example, a manager may have technical-functional skills in accounting, finance, engineering, manufacturing or computer science.

**Human skills**

Human skills are a manager’s ability to work well with others, both as a member of a group and as a leader who gets things done. Managers with effective human skills communicate with others and motivate them to achieve goals.

**Conceptual skills**

Conceptual skills entail visualising the whole organisation, identifying relationships between organisational parts and understanding how the organisation fits into the wider industry, community and global context.

Conceptual skills, technical skills, human skills and a knowledge base are important elements in organisational performance.

**Performance**

Drucker (1967) says that two important dimensions constitute management performance: effectiveness and efficiency.

**Effectiveness**

Effectiveness is the ability to choose appropriate goals and achieve them. For example, McDonald’s decided to provide a breakfast service to gain more customers; now, breakfast food sales comprise over 30 per cent of McDonald’s revenues. McDonald’s illustrates Drucker’s (1988) claim that effectiveness is accomplishing the right things.

**Efficiency**

Efficiency is the ability to make the best use of available resources to achieve goals. Efficient organisations minimise resource input (labour, raw materials and components) or time needed to produce a given output or service. For example, McDonald’s developed a more efficient fat fryer, reducing the amount of oil used and shortening cooking time. McDonald’s also illustrates Drucker’s (1988) point that efficiency is doing things right.

In this book, we will usually employ the term ‘effectiveness’ to refer to both effectiveness and efficiency.

**Managerial job types**

Managerial jobs vary along the vertical dimension (different hierarchical levels) and the horizontal dimension (the manager’s area of responsibility).

**Vertical dimension: Hierarchical levels**

Managerial jobs fall into three categories: first-line, middle and top management. These levels are shown in Figure 1.3.

**First-line managers**

At the lowest hierarchical level, first-line managers (or supervisors) operate where they are directly responsible for the work of operating (non-managerial) employees. Operating between management and the rest of the workforce, first-line managers face conflicting demands.
Middle managers

Middle managers are directly responsible for first-line managers and other middle managers. They also supervise operating staff, such as administrative assistants and specialists. They are mainly responsible for implementing overall organisational plans to achieve organisational goals.

Top managers

Top managers are responsible for the whole organisation. They are directly responsible for the upper layer of middle managers; typically, they oversee overall organisation planning, work with middle managers to implement planning and maintain control over the organisation’s progress.

Differences among hierarchical levels

The same managerial process applies at all hierarchical levels, but the emphasis varies. Major differences include importance of the four management functions, the skills needed for effective performance and the emphasis on the managerial roles.

Functions of management

As Figure 1.4 indicates, planning is more important for top management than for middle or first-line managers (Mahoney, Jerdee & Carroll 1965; Gomez-Meija, McCann & Page 1985). This is because top managers set the organisation’s overall direction, which needs extensive planning.

Organising is more important for top and middle managers than first-line managers because top and middle management has greater responsibility for allocating and arranging resources.

Leading is more important for first-line supervisors than higher-level managers, because first-line supervisors facilitate the production of goods or services.

The management function common to all levels is controlling. This shows a common emphasis on monitoring activities and taking corrective action.
Management skills

The three management levels also differ in the importance of technical, human and conceptual skills, as shown in Figure 1.5 (Katz 1974). Top management needs conceptual skills most because these managers must see the organisation as a whole, understand how its parts relate to each other and link it to the outside world (Maruca 1994).

First-line managers have the greatest need for technical skills because they supervise non-managerial, technical and professional employees. Middle managers will also need technical skills to communicate with subordinates and recognise major problems (Torrington & Weightman 1987). All management levels need strong human skills to get things done (Pavett & Lau 1983).

Managerial roles

Although Mintzberg (1980) argued that managerial roles apply to all management levels, he did note differences at various levels. Research suggests that the roles of figurehead, liaison and spokesperson grow in significance as a manager rises through the hierarchy. On the other hand, the leader role is more critical at lower levels, because the leading function is more important for managers at lower levels than at higher levels (Pavett & Lau 1983).

Horizontal dimension: Responsibility areas

In addition to vertical differences, managerial jobs differ on a horizontal dimension related to the nature of the responsibility area (see Figure 1.3). In horizontal differentiation, there are three major managerial job types: functional, general and project.

Functional managers

Functional managers are responsible for a specific organisation area (or a functional area) and supervise those with appropriate expertise and training. Common functional specialisations include finance, manufacturing or operations, marketing, human resource management, accounting, quality assurance and engineering.

General managers

General managers are responsible for a whole organisation or a substantial subunit, including most common specialised areas. In other words, a general manager presides over several functional areas (hence the term 'general'). General managers have several titles such as 'division manager' and 'president', depending on the situation. A small company normally has just one general manager heading the whole organisation. Depending on its structure, a large company may have several general managers (as well as the chief executive officer), each presiding over a major division.
Project managers

Project managers co-ordinate efforts of people in different units on a particular project. As individuals report to managers in their specific work units as well as their project manager, the managers must have very strong interpersonal skills to keep things smooth (we discuss this further in Chapter 6). Project managers are common in aerospace and high-technology firms, co-ordinating projects such as aeroplane or computer project development. They are also used in consumer-oriented companies to launch or stay on top of market development for specific products, such as biscuits or margarine.

The birth of management ideas

Many early civilisations developed large infrastructure projects that would have called for the development of management practices. However, the emergence of management as a distinct field of knowledge was driven by the industrial revolution. The concentration of work in factories gave rise to a need to co-ordinate people, and management theories and principles emerged (Rue & Byars 2003).

Preclassical contributors

During the pre-classical period of the middle and late 1800s, management theories and principles were developed by several contributors. Principal among these were Robert Owen, Charles Babbage and Henry R. Towne (see Table 1.2).

<table>
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<tr>
<th>TABLE 1.2</th>
<th>THE PRECLASSICAL CONTRIBUTORS AND THEIR PIONEERING IDEAS</th>
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<tbody>
<tr>
<td>CONTRIBUTOR</td>
<td>PIONEERING IDEAS</td>
</tr>
<tr>
<td>Robert Owen</td>
<td>Advocated concern for working and living conditions of workers</td>
</tr>
<tr>
<td>Charles Babbage</td>
<td>Built the first practical mechanical calculator and a prototype of modern computers; predicted specialisation of mental work; suggested profit sharing</td>
</tr>
<tr>
<td>Henry R. Towne</td>
<td>Outlined the importance of management as a science and called for development of management principles</td>
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</table>
Robert Owen (1771–1858), an entrepreneur and social reformer, ran a cotton mill in New Lanark, Scotland. He recognised the need to improve his employees’ working and living conditions, and achieved this by upgrading New Lanark’s streets, houses, sanitation and educational facilities. He also ensured workers worked only 13-hour days, with a 90-minute break for meals. His ideas laid a foundation for the human relations movement (discussed later in this chapter) (Wren 1994; Duncan 1989).

Middle managers resurgent

Managers are staging a comeback, and organisational structures will have to change if business is going to cope.

Middle managers, thought in the early and mid-1990s to be an endangered species, are making a sustained comeback. According to the Australian Bureau of Statistics (ABS), the number of people in management jobs has jumped by almost 4 per cent over the past year.

Nearly a third of middle managers are now women—the ‘glass ceiling’, which is said to prevent women from rising through the ranks, is no longer impermeable. Over the past decade, the number of management and administration roles has grown by about a third. In that time, the number of positions occupied by men rose by a quarter, while the number of women middle managers rose by 70 per cent. Women now account for 31 per cent of management roles, up from 23 per cent a decade ago.

It is worth comparing what has happened in management with the wider workforce. Over the past decade, the number of (full-time) male professionals increased 23 per cent, about the same as male managers. The number of female professionals increased by 41 per cent, only about half the rate for women in management (although women account for 43 per cent of professional roles, which is higher than for women in management). There are now more managers than labourers, full- and part-time.

The statistics suggest that the manager is back. But are layers of bureaucracy returning with them? Probably not. It is more likely that the growth is occurring horizontally rather than vertically—organisations are spreading outwards rather than up. In Australia’s larger corporations, the reduction in management layers seems to be permanent.

One possibility is that the increasing complexity of the labour and consumer markets requires managers with a high degree of skill (almost by definition, given that managers are defined by their skill level). Leading the contemporary enterprise, it turns out, is much more than just issuing directions and bringing a product to market.

When organisations spread outwards, there is increasing difficulty integrating the ‘silos’—the different parts of the organisation. If managers are increasing in numbers, but organisations are remaining flat, then the way managers work across the organisation with other managers becomes more important.

In response, a slew of management consultants is proffering advice on how to get managers from different parts of an organisation to work with each other (this was the original intention, if not the result, of the push to ‘re-engineer’ organisations). In one instance a ‘virtual group business consultant’ argues that silos ‘make managers eager to defend power, and hoard their intellectual capital and talent’.

Shifting horizons

- The number of managers over the past decade has been increasing faster than the general workforce.
- The number of women managers is growing almost three times as fast as male managers.
- Hierarchies are not returning, forcing managers to manage across organisations as well as up and down.
- The challenge in this more complex organisational environment is to develop successful alignment.

Questions

1. What does the return of the middle manager indicate in terms of the changes to how management is viewed as a function within the organisation?
2. Do some research to track the changes of the numbers of women in the various roles within the workforce in your home country over the last decade. How do you explain the changes?

**Charles Babbage**

Charles Babbage (1792–1871), a mathematician, was the ‘father of modern computing’. He explored work specialisation, or the division of work into specific jobs (Babbage 1832). He thought both physical and mental work could be specialised. In this sense, he foresaw the rise of specialisation; for example, accountants who specialise in either personal or corporate taxes.

Babbage also set up a two-part profit-sharing plan: a bonus for useful suggestions and a portion of wages based on factory profits. In this he anticipated some modern-day group incentive plans, such as the Scanlon Plan, where workers suggest how to improve productivity, then share in resulting profits.

**Henry R. Towne**

Henry R. Towne (1844–1924) was a mechanical engineer who was President of Yale and Towne Manufacturing. In 1886, he delivered a paper titled ‘The engineer as an economist’. He argued for the establishment of a science of management (Towne 1886). His paper ignited engineers’ interest in addressing business problems (Rue & Byars 2003).

**Assessing preclassical contributors**

While these early pioneers explored several avenues related to management, their efforts were uncoordinated. They focused on developing specific techniques to solve particular problems.

**Classical viewpoint**

The classical viewpoint emphasises managing work and the need to run organisations efficiently. The viewpoint is called ‘classical’ because it includes the first works and contributions that comprise the core of modern management theory (Bluedorn 1986).

**Scientific management**

Scientific management is an approach focused on worker efficiency through the scientific study of work methods. Representatives of this approach include Frederick Winslow Taylor and Frank and Lillian Gilbreth and Henry Eantt.

**Frederick Winslow Taylor**

Frederick Winslow Taylor (1856–1915) was one of the engineers present at Towne’s presentation in 1886 (Noble 1977; Wren 1994). In 1911, he wrote *The Principles of Scientific Management*, a book that some call ‘the most influential book on management ever published’ (Bedian & Wren 2002, p. 222). Born into a wealthy Philadelphia family, Taylor was an apprentice pattern maker and machinist at a local firm before going to Midvale Steel. There he rose from labourer to chief engineer, a position that allowed him to address the problem of **soldiering** (Pugh, Hickson & Hinings 1976; Duncan 1989).

‘Soldiering’ means deliberately working below full capacity.

Taylor believed soldiering could be avoided by applying four principles (shown in Table 1.3). His pioneering work on the use of time studies (Taylor 1985), demonstrated that scientific methods could determine how tasks should be done.

**Table 1.3** **Taylor’s Four Principles of Scientific Management**

<table>
<thead>
<tr>
<th></th>
<th>Scientifically study each part of a task and develop the best method for performing it.</th>
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<tbody>
<tr>
<td>2</td>
<td>Carefully select workers and train them to perform a task using the scientifically developed method.</td>
</tr>
<tr>
<td>3</td>
<td>Co-operate fully with workers to ensure they use the proper method.</td>
</tr>
</tbody>
</table>
Where wage systems encouraged soldiering, Taylor supported wage-based incentive plans, arguing that workers should receive between 30 and 100 per cent more for using scientifically developed work methods and reaching daily standards (Locke 1982).

To illustrate how scientific management works, consider Taylor’s shovelling studies at Bethlehem Steel. Workers provided their own tools, using the same shovel for both iron ore and ashes. Taylor found that 9.5 kilograms was the optimum shovelling weight. To achieve this optimum shovelling weight, he introduced shovels of different sizes for different materials. The average weight shovelled per worker per day grew from 16.3 to 60.2 tonnes, and the average handling cost per tonne halved. Meanwhile, the additional worker incentive pay and benefits meant that average earnings per worker per day grew (Locke 1982).

Some began to criticise Taylor, arguing his methods exploited workers. Taylor lived with this criticism for the rest of his life (Bedian & Wren 2001). A strike at an Army Arsenal, where some of Taylor’s ideas were used, led to a congressional investigation. Although the investigation found no evidence of worker abuse by ‘Taylorism’, the publicity slowed scientific management’s growth (Wren 1994). Nevertheless, scientific management spread to Europe, where it was applied in chocolate factories, fisheries, paper mills and typewriter factories (Breeze 1986; Fry 1976; Locke 1982; Wrege & Perroni 1974; Wrege & Storka 1978).

The application of scientific management at Ford Motor Company improved overall assembly times by 87 per cent, with similar improvements for all other subassemblies (Bateman & Snell 2004). However, it can also have negative effects: over-specialised jobs, worker resentment, poor quality, absenteeism, worker turnover and industrial conflict (Sewell & Wilkinson 1992; O’Connor 1999).

**The Gilbreths**

Another major scientific-management advocate was the husband-and-wife team of Frank (1868–1924) and Lillian (1878–1972) Gilbreth. While Frank qualified for admission to the Massachusetts Institute of Technology, he became a bricklayer. While helping train young bricklayers, Frank noticed that experienced workers handed on inefficiencies.

To streamline the process of laying bricks, he used motion studies. On the basis of these studies, workers increased the number of bricks laid per day from 1000 to 2700 with no greater physical effort (Wren 1994).

Frank married Lillian Moller, a psychologist and colleague. The two continued to undertake studies that eliminated unneeded motions, expanding their interests in task fatigue. Part of their work was the isolation of basic motions, each called a therblig (‘Gilbreth’ reversed, with the ‘t’ and ‘h’ transposed). Therbligs were motions such as select, position and hold—motions the Gilbreths used to study tasks across industries. The Gilbreths also pioneered the use of motion pictures to study jobs (Locke 1982). They even applied their ideas to aspects of their domestic life (Kinicki & Williams 2003).

Lillian Gilbreth’s doctoral thesis, published in 1914 as *The Psychology of Management*, applied psychology to the workplace. Lillian was interested in the human implications of scientific management, arguing it helped people develop their skills and enabled them to reach their maximum potential (Wren 1994).

After Frank’s death, Lillian continued their innovative studies and consulting, finally becoming a management professor at Purdue University (Wren 1994).

**Henry L. Gantt**

Henry Gantt (1861–1919) was one of Taylor’s closest associates, working with him in several firms including Midvale and Bethlehem Steel (Wren 1994; Duncan 1989). Gantt made his own contributions, the best known being the Gantt chart. It is still widely used as a graphic aid for planning, scheduling and control. He also developed a unique incentive pay system. It not only raised workers’ pay on reaching a standard in the time allotted, but also gave supervisors bonuses when workers reached that standard. This system encouraged supervisors to coach workers who have difficulties.

**Bureaucratic management**

Another branch of the classical viewpoint is bureaucratic management, which saw the need for organisations to operate in a rational manner rather than rely on owners’ and managers’ arbitrary whims.
Weber (1864–1920) was born to a wealthy, politically and socially well-connected German family (Wren 1994; Eisen 1978; Duncan 1989; Pugh, Hickson & Hinings 1976). He worked as a consultant, professor and author. Among his ideas was the need for organisations to operate more rationally.

To understand how large organisations evolving from the industrial revolution might operate ideally, Weber laid out the characteristics of an ‘ideal bureaucracy’ (see Table 1.4). He coined the word ‘bureaucracy’ to identify large rational organisations. Weber knew ideal bureaucracies did not really exist. In fact, he warned against the use of his ideas as a prescription for managers. He merely presented his ideas as a starting point to understand real-world organisations (Weiss 1983; Stern & Barley 1996; Scott 1996). However, once he was translated into English, many scholars saw in his ideas a guide to effective management.

For many, the term ‘bureaucracy’ has negative connotations, meaning excessive red tape and inflexible rules. Nevertheless, bureaucratic characteristics do have advantages.

**Administrative management**

Administrative management is the third branch of the classical viewpoint. Administrative management focuses on principles that co-ordinate the organisation’s internal activities. Contributors include Henri Fayol and Chester Barnard, both executives of large firms. Their work laid the foundation for the concept of management as a professional field (Bateman & Snell 2004).

**Henri Fayol**

French industrialist Henri Fayol (1841–1925) trained as a mining engineer, joining a coal-and-iron company as an apprentice and rising to managing director by 1888 (Wren 1994; Duncan 1989; Pugh et al. 1976). He moved the company from severe financial difficulties to a strong position before retiring at 77.

Fayol believed management theories could be developed, then taught. His theories were published in a monograph titled *General and Industrial Management* (1916).

Fayol identified five major functions: planning, organising, commanding, co-ordinating and controlling. These functions laid the foundation of the functional approach to management—our contemporary belief that management is planning, organising, leading and control.

Fayol also expressed 14 principles (see Table 1.5) that he had drawn upon to run his coal-and-iron firm. Fayol’s principles are still valid (Eccles & Nohira 1992) and some have argued that these principles anticipated the emergence of the behavioural viewpoint, systems theory and contingency theory (Parker & Ritson 2005a, 2005b).

**TABLE 1.4 MAJOR CHARACTERISTICS OF WEBER’S IDEAL BUREAUCRACY**

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>Specialisation of labour</td>
<td>Jobs are broken down into routine, well-defined tasks so members know what is expected of them and can become very competent at their particular task subset.</td>
</tr>
<tr>
<td>Formal rules and procedures</td>
<td>Written rules and procedures specify behaviours wanted from members, facilitating co-ordination and ensuring uniformity.</td>
</tr>
<tr>
<td>Impersonality</td>
<td>Rules, procedures and sanctions are applied uniformly regardless of individual personalities and personal considerations.</td>
</tr>
<tr>
<td>Well-defined hierarchy</td>
<td>Multiple levels of positions, with carefully determined reporting relationships among levels, provide supervision of lower offices by higher ones, a means of handling exceptions and the ability to establish accountability of actions.</td>
</tr>
<tr>
<td>Career advancement based on merit</td>
<td>Selection and promotion is based on members’ qualifications and performance.</td>
</tr>
</tbody>
</table>
If we compare Fayol’s work with Taylor’s, we can see both wanted to improve managerial practice, but they tried to improve it in different ways. As we have seen, Taylor focused on the worker, but Fayol considered the whole management process. In effect, Taylor set out to improve organisational performance from the shop level up while Fayol tried to improve it from the top level down (Wren 2003).

Chester Barnard


One of Barnard’s best-known contributions is his **acceptance theory of authority**. This theory argues that authority depends less on ‘persons of authority’ who give orders than on the willingness to comply of those who receive them. On the basis that authority flows from the bottom to the top, Barnard argued employees more readily accept directions from a manager if they (1) understand the communication, (2) see the communication as consistent with organisational purposes, (3) believe the actions asked for suit both their and other employees’ needs, and (4) see themselves as mentally and physically able to comply.
Behavioural viewpoint

Classical theorists saw people as production mechanisms, asking how organisations could use people efficiently. In the main, classical theorists did not consider the possibility that an employee's behaviour and productivity might be changed by internal reactions to different aspects of their work situation. The behavioural viewpoint focused on the need to understand how different factors affect human behaviour in organisations. To understand this viewpoint, we look at four aspects of its development: the contributions of early behaviourists, the Hawthorne studies, the human relations movement and the more recent behavioural science approach.

Early behaviourists

With growing interest in management, individuals from other backgrounds began to offer alternatives to scientific management's engineering focus. Two early behaviourists, psychologist Hugo Münsterberg and political scientist Mary Parker Follett, contributed pioneering ideas that helped make the behavioural perspective a major viewpoint.

Hugo Münsterberg

Born and educated in Germany, Hugo Münsterberg (1863–1916) earned both a PhD in psychology and a medical degree. At Harvard in 1892, he established a psychological laboratory to study psychology’s practical applications. Soon his attention turned to industrial applications, which led to the publication of *Psychology and Industrial Efficiency* (1913). He argued industry could use psychologists in three major ways. The first was linked closely to scientific management: psychologists could study jobs and identify individuals best suited to particular jobs. The second was identifying psychological conditions where people tend to do their best work. The third was developing strategies to influence employees to behave in ways that fit with management’s interests. Münsterberg’s ideas and examples led to establishing the field of industrial psychology—the study of human behaviour in a work context. Münsterberg is known as ‘the father of industrial psychology’ (George 1972; Landy 1992).

Mary Parker Follett

Though she was originally misclassified as an advocate of scientific management, Mary Parker Follett (1868–1933) is now thought of as an important early behaviourist (Parker & Ritson 1995b). Educated at Harvard and Cambridge in political science, Follett became interested in business administration when she found industrial managers faced the same control, power and conflict problems as public service administrators (Pugh, Hickson & Hinings 1976).

Follett assigned great importance to group functioning in firms. She argued that organisation groups influenced their members (Parker 1984). In fact, she believed groups could control themselves and their own activities, a view that is re-emerging with the growth of interest in self-managed teams.

Follett held that firms should operate on the principle of ‘power with’ rather than ‘power over’. To her, power was the ability to influence and produce change (Graham & Follett 1995). She argued power should not be a coercive process based on a hierarchy; instead, workers and managers should work together co-operatively. Follett advocated power sharing, whereas Barnard emphasised appropriate responses encouraged from below (Barnard 1968; Duncan 1989).

Follett suggested the ‘power with’ concept could be fostered by resolving conflict through integration—that is, finding a solution satisfactory to all. Follett noted that ‘integration involves invention, and the clever thing is to recognise this, and not to let one’s thinking stay within the boundaries of two alternatives that are mutually exclusive’ (Metcalf & Urwick 1940, p. 32). Her integration ideas anticipated modern conflict-resolution methods.

Follett emphasised integrative unity, where the firm works as a functional whole with all interrelated parts striving to achieve organisational goals. She saw the process of working together as a dynamic one, responding to changing environmental factors. As we will see, this idea anticipated the systems view of management (Wren 1994; Parker 1984; Linden 1995). Indeed, Parker (1984, p. 738) suggests its significance ‘rivals the long-standing influence of such giants as Taylor and Fayol’. Her thoughts and ideas are seen as contemporary and innovative even today (Wheelock & Callahan 2006; Parker & Ritson 2005).
Hawthorne studies

While Follett was working, Elton Mayo was involved in the **Hawthorne studies**. These were carried out at Western Electric’s Hawthorne plant in the late 1920s and early 1930s, and led to the human relations view of management. The impact of these studies to both management and academics was enormous as they helped develop an understanding of the ‘human factor’ in work situations (Pugh, Hickson & Hinings 1976). To understand the importance of these studies, we must trace their beginnings.

Initially, the Hawthorne studies were an exercise in scientific management. General Electric wanted to sell more light bulbs and it commissioned the National Research Council to undertake some studies designed to link increased efficiency with extra lighting. The tests were held at the Hawthorne Works (Chicago) of the Western Electric Company (Greenwood & Wrege 1986). Three sets of studies were conducted.

**First set of studies**

Several engineers carried out the Illumination studies, between 1924 and 1927. In one study, the experimental group (the group for whom lighting changed) experienced declining levels of lighting, while the control group (a comparison group working in another area) experienced constant lighting. Both groups’ performance increased. The experimental group’s performance finally declined only when the lighting became so low that workers complained they could not see (see Figure 1.6). The researchers realised that factors beyond lighting were at work (as both groups’ performance increased), and ended the project (Greenwood & Wrege 1986).

**Second set of studies**

Some engineers and company officials became interested in these positive productivity changes and wanted to find the causes. Between 1927 and 1933, a second set of experiments was run. The most famous of these involved five women in the Relay Assembly Test Room, who were kept apart from other workers so researchers could alter work conditions and evaluate results. The study aimed to find the optimum combination of work and rest periods, but other aspects were also changed. Concerned about possible negative responses from the participants, the researchers did not appoint an official supervisor. Instead, the women operated under the experimenters’ direction, and got a lot of attention from experimenters and management. The women also enjoyed several privileges, including being able to leave their workstation without permission (Adair 1984).

**FIGURE 1.6** Actual versus expected results for experimental and control groups in one of the Hawthorne Illumination studies

[Diagram showing productivity against amount of light reduction, with different lines for experimental and control groups. The lines show an increase in productivity with a decrease in light reduction, with a distinction for the control group where lighting remained at the same level.]
Over the course of the study, productivity generally increased, no matter how the elements changed (Greenwood & Wrege 1987). A Harvard University research group decided that the changes to supervision were the main reason for the productivity increases observed in the study. This famous concept, known eventually as the **Hawthorne effect**, postulates that the performance of those being studied may improve simply because of the added attention received from researchers, rather than because of any specific factors being tested (Rice 1982).

More recent research suggests the Hawthorne-effect concept is a simplistic explanation and the concept is flawed. Possibly, the Hawthorne plant results came from workers and researchers seeing what happened differently (rather than the workers reacting positively to the researchers’ attention). Workers probably saw the supervision changes as a positive work environment change, though this was not the researchers’ intention (Adair 1984).

**Third set of studies**
The third set of Hawthorne studies built on the second’s findings. It included the famous Bank Wiring Observation Room study (1931–32), with a group of male workers. Studying the group gave information about informal social relations and how norms restrict output when the group sees this as desirable (Wren 1994; Bramel & Friend 1981).

**Impact of the Hawthorne studies**
The Hawthorne studies brought about a change in the focus of management study, by demonstrating how much productivity is affected by the social aspects of work, especially supervisor attention and group-member relationships (Adair 1984, p. 334; Carey 1967; Shepard 1971; Bramel & Friend 1981; Greenwood, Bolton & Greenwood 1983; Sonnenfeld 1985).

**Human relations movement**
Though flawed, the Hawthorne research increased interest in the organisation’s social dimension. The studies suggested showing greater concern for workers would increase their job satisfaction and willingness to produce, thus leading to greater productivity. Establishing collaborative and co-operative supervisor-and-worker relationships was emphasised. Management called for social skills as well as technical skills. It also demanded an understanding of the dynamics of job satisfaction. While the Hawthorne studies gave some clues, managers needed greater focus. Abraham Maslow and Douglas McGregor were among those who developed helpful ideas for managers.

**Abraham Maslow**
Abraham Maslow (1908–70) received his doctorate in psychology from the University of Wisconsin, eventually becoming of Brandeis University’s psychology department. He developed a motivation theory based on three assumptions about human nature. First, human beings have needs that are never totally satisfied. Second, humans aim to fulfil unsatisfied needs. Third, needs fit into a relatively predictable hierarchy, going from basic, lower-level needs at the bottom to higher-level ones at the top (Duncan 1989). Maslow’s hierarchy has five need levels: physiological (lowest), safety, belongingness, esteem and self-actualisation (highest). Self-actualisation needs refer to the need to develop our capabilities and reach our full potential (Maslow 1954).

Maslow’s work showed managers that workers have needs beyond a basic drive to earn enough money to put a roof over their heads. This idea conflicted with scientific management, which focused on monetary pay. Among management-related theories, Maslow’s hierarchy of needs theory is probably the best known to modern managers.

**Douglas McGregor**
Douglas McGregor (1906–1964) focused on managers’ perceptions of workers. McGregor gained a doctorate at Harvard, then spent most of his career as a professor of industrial management at the Massachusetts Institute of Technology (Pugh, Hickson & Hinings 1976). During six years as president of Antioch College, he saw that simply aiming to have everyone like the boss (i.e. maintaining good relations with workers) was a poor guide for managers.

He explored managerial assumptions about workers by developing the concept of **Theory X versus Theory Y**, shown below in Table 1.6. McGregor thought managers’ activities were influenced by these
McGregor believed managers with Theory X assumptions set up elaborate controls and try to motivate entirely with economic incentives. As a result, workers’ responses reinforce the manager’s assumptions. By contrast, managers with Theory Y assumptions integrate individual and organisational goals. Theory Y managers give workers latitude to perform tasks, encourage them to be creative and innovative, minimise control use, and try to make work more interesting and satisfying for higher-level needs. McGregor believed ‘the limits of collaboration in the organisational setting are not limits of human nature but of management’s ingenuity in discovering how to realise the potential represented by its human resources’ (Jones, George & Hill 2000, p. 45). A manager’s task was to foster commitment to organisational goals and, by creating appropriate work settings, give workers the opportunity to be creative, exercising initiative and self-direction. McGregor (1960) knew immature, dependent workers might need greater control to build the maturity needed for a Theory Y approach.

McGregor’s Theory X and Theory Y helped managers develop a broader view of workers’ nature and how to interact with them. It also helped avoid the phenomenon of the self-fulfilling prophecy; that is, where the manager’s expectations of a subordinate’s behaviour become the behaviour perceived (Kinnicki & Williams 2003). These ideas appealed to managers wanting to operate more effectively, and consequently became very popular and widely used.

### Behavioural science approach

Building on the human relations viewpoint, others tried to show options to the classical school’s rational-economic view of workers. They showed workers as social creatures, with varied needs to be met on the job. But the basic picture was fairly general, often leaving managers unsure what to do and what result they would gain. The need for a richer view of work situations led to the behavioural science perspective.

The approach uses scientific research to develop theories of human behaviour in organisations. This approach draws from many disciplines, such as management, psychology, sociology, anthropology and economics. Concepts are tested in companies or laboratories before being generalised to other situations. This approach is particularly effective in improving managers’ ability to adapt their leadership style to different situations, thus enhancing organisational effectiveness.

### TABLE 1.6 THEORY X AND THEORY Y MANAGERIAL ASSUMPTIONS

<table>
<thead>
<tr>
<th>Theory X assumptions</th>
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<tbody>
<tr>
<td>1. The average person dislikes work and will try to avoid it.</td>
</tr>
<tr>
<td>2. Most people must be coerced, controlled, directed and threatened with punishment to get them to work toward organisational goals.</td>
</tr>
<tr>
<td>3. The average person wants to be directed, shuns responsibility, has little ambition and seeks security above all.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Theory Y assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Most people do not inherently dislike work; the physical and mental effort involved is as natural as play or rest.</td>
</tr>
<tr>
<td>2. People will exercise self-direction and self-control to reach goals they are committed to; external control and punishment threats are not the only way to get effort toward goals.</td>
</tr>
<tr>
<td>3. Commitment to goals is a function of available rewards, particularly those satisfying esteem and self-actualisation needs.</td>
</tr>
<tr>
<td>4. When conditions are favourable, the average person learns not just to accept but to seek responsibility.</td>
</tr>
<tr>
<td>5. Many people have a capacity to exercise a high degree of creativity and innovation in solving organisational problems.</td>
</tr>
<tr>
<td>6. The intellectual potential of most individuals is only partly used in most organisations.</td>
</tr>
</tbody>
</table>
offered to managers. The ultimate aim is to develop theories that guide managers’ assessment of different situations and help them choose the best action. Given the complexity of humans and their interactions, the challenge is to understand organisations and their members.

One example of behavioural science is the idea that people perform better when faced with specific and measurable goals that are challenging but attainable. The idea that goal setting helps performance stems from research conducted by Edwin A. Locke and others (Locke et al. 1981; Pritchard et al. 1988).

Quantitative management viewpoint

The quantitative management viewpoint emerged during World War II. Due to the sheer size of the war effort, Allied military forces used quantitative methods in order to use resources effectively. This use of quantitative methods drew the attention of businesses, where quantitative experts found work in civilian firms after the war.

The quantitative management viewpoint focused on mathematics, statistics and information aids to support managerial decision making and organisational effectiveness (Miller & Feldman 1983). Three main branches have evolved: management science, operations management and management information systems.

Management science

Management science increases decision effectiveness by using mathematical models and statistical methods such as forecasting models and linear programming (Gaither 1996). Another name for management science is operations research. Increased computer power has simplified the use of management science’s mathematical and statistical tools. For example, Avon employed management science; Group Vice-President for Planning and Development, Robert W. Pratt, used statistical methods to determine the effects of changing the company’s normal practice of generating larger orders by offering huge discounts. His results showed the firm could boost profits by cutting discounts, even if average orders dropped (Waldon 1985).

Operations management

Operations management is responsible for managing the production and delivery of products and services (Sawaya & Giauque 1986). It includes inventory management, work scheduling, production planning, facility location and design, and quality assurance. Manufacturing areas often use operations management for aspects such as production process design, raw materials purchase, employee work scheduling and final product storage and shipping. Some popular operations management systems used in manufacturing include flexible manufacturing systems (FMS), computer-aided design (CAD), computer-aided manufacturing (CAM), computer integrated manufacturing (CIM), material requirements planning (MRP), manufacturing resources planning (MRP II), enterprise resources planning (ERP) and just-in time (JIT) (Gaither 1996). Operations management concepts, and some of these systems, are also used for service delivery.

Management information systems

The term management information system refers to the management field focused on designing and implementing computer-based management information systems. These systems turn raw data into information for many management levels. They are powerful competitive weapons for industries that manage large volumes of information.

Contemporary viewpoints

While classical, behavioural and quantitative approaches aid management, others have emerged. Two enduring contemporary viewpoints are systems and contingency theories. Other new and emerging approaches have also influenced management thinking. Often dismissed as fads (Parker & Raston 2005b), some of these approaches may attain the status of enduring viewpoints.
**Systems theory**

Systems theory views organisations as systems (Kast & Rosenzweig 1972). A system has subsystems, or ‘a set of interrelated and interdependent parts or components’, which work together in pursuit of common goals. The systems approach is based on metaphors drawn from the biological and physical sciences (Yoon & Kuchinke 2005; Lemak & Henderson 2004; Bertalanffy 1951; Katz & Kahn 1966, 1978; Boulding 1956). In this section, we consider major systems components, open versus closed systems and open system characteristics.

**Major components**

According to the systems approach, an organisation system has four main components (see Figure 1.7). **Inputs** are human, material, financial, equipment and informational resources needed for goods and services production. **Transformation processes** are a firm’s managerial and technological abilities used in changing inputs into outputs. **Outputs** are organisational products, services and other outcomes. **Feedback** is clear, timely information on results and organisational status relative to the environment (Lemak & Henderson 2004; Ramaprasad 1983).

The systems approach has many benefits. First, systems can be analysed at different levels (Asmos & Huber 1987). For example, Miller (1978) developed a typology of hierarchical levels of living systems, ranging from an individual human cell (including atoms and molecules) to a supranational system of two or more societies. Usually, managers look at the organism (individual), group, organisation and society levels, although the present, increased emphasis on globalism means the supranational level is increasingly important. Second, the systems view forms a framework for assessing interactions between organisation parts. Third, it shows change in one part of a system affects others. Fourth, it considers an organisation’s interaction with its environment. To properly consider the environment, an organisation must operate as an open system.

**Open versus closed systems**

Systems can be open or closed. An **open system** continually interacts with its environment. By these interactions, the system gains new inputs and learns how external elements view its outputs. In contrast, a **closed system** does not interact with its environment and gets little feedback. Companies are always somewhat open, since a firm cannot operate for long with no environmental interaction.
Still, organisations occupy different locations on the open–closed continuum. If an organisation operates too close to the closed end, it might ignore significant environmental factors until major problems emerge (Kast & Rosenzweig 1974).

Characteristics of open systems

Organisations operating near the open end of the continuum share characteristics that help them survive and prosper. Two major open-system characteristics are negative entropy and synergy (Kast & Rosenzweig 1972; Katz & Kahn 1978).

Entropy refers to the tendency of systems to decay over time. **Negative entropy** is the ability of open systems to delay or arrest entropy by bringing in new environmental energy in the form of inputs and feedback.

A second major open-system characteristic is **synergy**—the ability of the whole to equal more than the sum of its parts. This means a firm working as a whole can achieve its goals more effectively and efficiently than if parts operate separately.

According to the systems viewpoint, managers who operate their units and firms as open systems tuned to significant environmental factors will be more successful.

Contingency theory

Classical theorists, such as Taylor and Fayol, tried to find ‘the one best way’ for managers to operate. If universal principles could be found, then a good manager would only need to learn these principles and their applications. Sadly, it was not so simple. Researchers found some classical principles, such as Fayol’s unity of command (each person should report to one boss), could be violated without harm. As a result, **contingency theory** developed. This theory argues that appropriate managerial action depends on situational parameters. Thus, instead of universal principles for every situation, contingency theory identifies desirable actions depending on situational characteristics (see Figure 1.8) (Luthans 1973; Lee, Luthans & Olson 1982).

To be sure, Fayol and other classical theorists realised judgment was needed to apply their principles. Still, they focused on universal rules and became vague about exceptions (Lorsch 1979; Tosi & Slocum 1984).

Throughout this book, we draw upon the contingency viewpoint, highlighting areas where the application of management ideas depends on situational factors. The contingency approach is particularly applicable to environmental factors, strategy, organisational design, technology and leadership.

The total quality philosophy

Quality has competitive benefits and some firms have adopted **total quality management (TQM)**, an approach focused on collective responsibility for product and service quality, which encourages people in different but related departments (e.g. product design and manufacturing) to work together to improve quality. First called total quality control, this approach calls for commitment across the organisation,
quality efforts integrated with company goals and quality performance appraisals (Port 1987; Schroeder 1989).

Total quality management is a change in perception of quality. While business managers confront the issue of how to do quality, academics try to determine what quality is (Bounds, Yorks, Adams & Ranney 1994). The traditional view of quality focuses on a deviation from specified subjective standards (i.e. is product A better than product B?). In contrast, TQM aims for zero defects, and encourages the workforce to make their product or service conform exactly to pre-specified quality standards (Schroeder 1989).

While Japanese firms are often seen as pioneering TQM, originally the idea was American. After being ignored in the late 1940s, W. Edwards Deming took his ideas on statistical quality improvement methods to Japan. He promoted employee and departmental engagement in quality efforts, outlining his philosophy in 14 points. Japanese industry welcomed his ideas, appreciating them so highly they set up the Deming prize, an annual award for excellence in quality control. In the 1950s, Juran, another American, also aided Japanese TQM efforts (Garvin 1987; Juran 1988).

One important aspect of TQM is its emphasis on the cost of quality; that is, the cost of not doing things right the first time (Monks 1987).

There has been a move towards adopting quality as a managerial philosophy. This often becomes a search for continuous, incremental improvements in all company processes rather than simply a statistical strategy to reduce manufacturing defects (Sewell & Wilkinson, 1992).

Knowledge management and the learning organisation

In any organisation, knowledge is the only unique asset. It helps managers anticipate changes and compete in a dynamic business environment. Products, services, processes and performance are the result of knowledge. High-performance organisations are good at adapting and creating knowledge.

Managerial Dilemmas

Get advice, get it early, get it online

Starting a business, from a commercial outlet or home, requires meticulous planning, so it is important to get the best advice as early as possible.

Budding business operators in Victoria will find advice at www.business.gov.au, as well as practical tools and support to help negotiate their way through this critical phase. The website offers advice about how to manage compliance obligations, deal with government and more, using interactive step-by-step guides.

Registering for a free Business Victoria account gives users access to additional tools and services. The account is a way to manage ongoing compliance obligations as businesses can store and build records centrally. Users may choose to log on to browse their account or use the service to meet by remote.

Reflection point:

1. Why would the Victorian government provide this service to start-up organisations? What are the advantages of such a service? Why is it free?
2. Try logging on to the website and consider what the advantages would be for a beginner business owner who used the services on the website.

Knowledge is therefore the key source of competitive advantage, and knowledge management is ‘doing what is needed to get the most out of knowledge resources’ (Becerra-Fernandez, Gonzalez & Sabherwal 2004, p. 2). As Mische (2001, p. 163) notes, ‘Knowledge is generated, used and assimilated by people.’ The challenge is that knowledge is dynamic, constantly evolving and advancing, so something relevant today may be outdated tomorrow. Thus, managing knowledge is challenging and complex. An organisation cannot leverage knowledge unless it learns how to create and use it. Therefore, there is a strong correlation between knowledge and learning (Mische 2001; Awad & Ghazari 2003).

The learning organisation approach is allied to more recent manifestations of the TQM philosophy. It argues organisations are learning systems, and advocates an organisational focus on retaining knowledge and learning. Learning is the basis of organisation change and adaptation to new events and conditions (Bateman & Snell 2004).

The learning organisation uses data and facts, looks for opportunities, checks outcomes, seeks out organisations to model itself on, and then shares learning among its members.

**SUMMARY**

- **Management** is the achievement of organisational goals by engaging in the four major functions of planning, organising, leading and controlling. These functions are the basis of the managerial process; however, several other elements contribute to our understanding of how managers actually operate. For instance, work methods and managerial roles feed into management functions. A manager’s knowledge base and management skills are also important in reaching performance targets.

- Mintzberg’s study of top managers found their work methods were characterised by unrelenting pace, brevity, variety, fragmentation and heavy use of verbal contacts and networks. Mintzberg isolated three major categories of roles: interpersonal, informational and decisional. Within these categories, he identified ten specific roles: figurehead, leader, liaison, monitor, disseminator, spokesperson, entrepreneur, disturbance handler, resource allocator and negotiator. To a large extent, these work methods and roles are characteristic of managers at other organisational levels.

- For managers to act out roles and engage in planning, organising, leading and controlling, they also need a knowledge base and key management skills. The key skills fit into three categories: technical, human and conceptual. These skills, and other elements in the process, affect performance. Performance has two important dimensions: effectiveness and efficiency. Effectiveness is the ability to choose appropriate goals and achieve them, while efficiency is the ability to make best use of available resources in the process of achieving goals.

- Managerial jobs differ by hierarchical level (a vertical dimension) and responsibility areas (a horizontal dimension). They are generally divided into three hierarchical levels: first-line, middle and top. Managers at these levels vary in the emphasis they place on planning, organising, leading and controlling. They also differ in the importance placed on key management skills and the degree to which they use different types of managerial roles.

- While management practices can be traced to ancient times, the industrial revolution and the need for better ways to run emergent factory systems led to development of management theories and principles. The initial ideas of pre-classical writers such as Robert Owen, Charles Babbage and Henry R. Towne resulted in management being identified as a significant field of inquiry. From this, four major viewpoints developed: classical, behavioural, quantitative and contemporary.
The classical viewpoint seeks to more efficiently manage work and organisations. It includes three approaches. Scientific management, represented by the work of Frederick Winslow Taylor, Frank and Lillian Gilbreth, and Henry Gantt, focuses on improving worker efficiency by scientific study of work methods. The bureaucratic approach, pioneered by Max Weber, centres on the need for organisations to operate rationally, rather than relying on whims of owners and managers. The administrative management approach, supported by Henri Fayol and Chester Barnard, explores principles used by managers to co-ordinate internal organisation activities.

The behavioural viewpoint tries to understand the factors affecting organisational behaviour. Hugo Münsterberg and Mary Parker Follett were early behaviourists. The Hawthorne studies showed workers were not just production tools. These studies, while flawed, gave insights leading to the human relations movement, emphasising concern for the worker. Abraham Maslow’s hierarchy of needs theory and Douglas McGregor’s Theory X and Theory Y gave some managerial guidance, but were still general. The behavioural science approach, emphasising scientific research, built more specific theories about organisational behaviour, giving managers practical guidelines.

The quantitative viewpoint focuses on mathematics, statistics and information aids in support of managerial decision making and effectiveness. It has three main branches. Operations research uses sophisticated mathematical and statistical methods to raise decision effectiveness. Operations management manages production and delivery of a firm’s products and services. Management information systems design and implement computer-based information systems for management.

Contemporary viewpoints are newer innovations in management thought. They include systems and contingency theories, and more recent views such as total quality management, knowledge management and the learning organisation. The systems theory approach sees firms as systems, with inputs, transformations, outputs and feedback. Contingency theory says the best managerial action depends on a situation’s specific parameters. More recent views include approaches that, if they are supported by research, may become major viewpoints.

**QUESTIONS FOR DISCUSSION AND REVIEW**

1. Describe each major management function: planning, organising, leading and controlling. For a campus or other organisation to which you belong, give an example of a manager engaging in each of these functions. What implications are there if one or more of the functions is absent?

2. List three common managerial work methods identified by Mintzberg. How could a manager misuse these work methods to the extent they would lead to poor performance?

3. Explain the three general types of roles and ten specific roles managers play. Suppose you opened a ski-and-surf shop near campus carrying clothing, skis and other accessories for recreation at ski resorts and beaches. Assume you have six employees. How might you use the ten roles in managing your shop?

4. Contrast effectiveness and efficiency as they apply to organisational performance. What happens when you have one without the other?

5. Describe how managerial jobs vary by hierarchical level. What are the managerial implications?
6 Explain how pre-classical contributors helped set the stage for the development of management as a science.

7 Contrast the three major approaches within the classical viewpoint: scientific management, bureaucratic management and administrative management. Give examples of how these approaches are reflected in a familiar company.

8 Explain the development of the behavioural viewpoint. How could a set of flawed studies—the Hawthorne studies—help bring about the behavioural viewpoint of management?

9 Describe the reasoning behind the contingency viewpoint. Why did it emerge? What implications are there for managerial education?

10 Which, if any, of the contemporary viewpoints are relevant to the current business environment?

CRITICAL THINKING QUESTIONS

To answer some of these questions you will need to do further research. Useful references are given below each section of the questions.

This chapter presented an overview of the management process by focusing on the actual activities, knowledge and skills that managers require to be effective and innovative. It also reviewed the roots of current approaches to management, ranging from the scientific, behavioural and quantitative to the contemporary. This section uses an article by Andrews (2003) on the need for innovation in our views of managerial styles, to ensure that the skills learnt in the past are adapted to meet the demands of the twenty-first century organisation.

This section addresses issues facing managers today, concluding with a brief review of some of the so-called ‘management fads’ of the last two decades in order to discover how the cynical reaction to many of today’s organisational innovations is related to the evolution of the art of management.

1 What can the manager of today learn from the study of ‘management classics’ such as those listed below?


2 The history of management thinking is partly about developing understanding about the norms of behaviour in the workplace. How did the findings of the Hawthorne experiments contribute to this?
This section uses an article by Andrews (2003) on the need for innovation in our views of managerial styles to ensure that the skills learnt in the past are adapted to meet the demands of the twenty-first century organisation.

3 The best managers can change their style to suit the need but, however they work, Andrews (2003) suggests that good management of time is the key to effective control. Recent research suggests that executives who take longer to consider and consult before making a decision eventually earn higher salaries than those who made quick decisions with a limited amount of information. Why?

Andrews draws on the work Michael Driver (a professor of industrial-social psychology at the Marshall School of Business at the University of Southern California) and Kenneth Brousseau (Driver’s business partner in management consultancy firm, Decision Dynamics), who have developed categories of management styles. ‘Decisive style’ managers tend to use a minimum amount of information to respond rapidly to a situation, and they can seem impressive simply because they make decisions at speed. Driver and Brousseau’s analysis of managers’ salaries in the US shows that managers who identify themselves as ‘decisive’ earn higher salaries than their counterparts, even when employed at the junior levels of a company. However, as they move into more senior positions, on average managers who take more time with their decisions overtake their salaries.

Innovation and adaptability are key words for current organisations. According to Hayward (2002), one of the best books to find inspiration, advice and insights is Diffusion of Innovation by Rogers (1962). This book appears quite dry and theoretical when placed alongside more contemporary offerings, such as Hamel’s Leading the Revolution (2000), which deals with the painful side of change that many other writers ignore. Part of the strength of modern management ideas probably stems from the fact that the management literature of today has become more accessible to the public as a whole.

4 What are some of the management theories from the last 20 years that are either declining in popularity or have seen their day?

5 Does this support the notion that management theories are just fads and that people only use the word ‘guru’ because, as Peter Drucker once claimed, ‘charlatan’ is too long?


In his recent book, Change Without Pain (2003), Columbia Business School professor Eric Abrahamson suggests that ‘make do and mend’ is the new message for managers, and that organisations reinvent themselves by building on what they have. While management in the 1990s was characterised by the slash-and-burn rhetoric of business process re-engineering, Abrahamson suggests that the past three or four years has seen a turn in the intellectual tide. This has been manifest in the success of books such as Zook’s Beyond the Core (2003) and Hargadon’s How Breakthroughs Happen (2003). The single greatest feature of all these works is the adoption of a conservative approach to the management of change.

6 How and why do you think that this new conservatism has arisen?

Professor Abrahamson suggests many organisations have now become addicted to change—and suffer accordingly, with symptoms ranging from barely controlled chaos to employee anxiety, burnout and cynicism. The cure, he argues, is to introduce some stability and continuity. Instead of ‘rip-and-replace’, managers should adopt the attitude of ‘make do and mend’.
7 What does this mean in practice?

Management fads and fashions will continue to come and go, some enjoying spectacular success under given conditions while others sink into relative obscurity. The main task of managers, and the reason they are paid the money they are, is to make the best judgment possible to ensure the success and continuation of the organisation.


MANAGEMENT EXERCISES

EXERCISE 1 Personal Assessment of Management Skills (PAMS)

To get an overall profile of your level of skill competence, respond to the following statements using the rating scale below. Please rate your behaviour as it is, not as you would like it to be. If you have not engaged in a specific activity, answer according to how you think you would behave based on your experience in similar activities. Be realistic; this instrument is designed to help you tailor your learning to your specific needs.

Rating scale
1 Strongly disagree
2 Disagree
3 Slightly disagree
4 Slightly agree
5 Agree
6 Strongly agree

In regard to my level of self knowledge:

_____ 1 I seek information about my strengths and weaknesses from others as a basis for self improvement.
_____ 2 In order to improve, I am willing to be self-disclosing to others (that is, to share my beliefs and feelings).
_____ 3 I am aware of my preferred style in gathering information and making decisions.
_____ 4 I understand how I cope with situations that are ambiguous and uncertain.
_____ 5 I have a well-developed set of personal standards and principles that guide my behaviour.

When faced with stressful or time pressured situations:

_____ 6 I use effective time management methods such as keeping track of my time, making to do lists and prioritising tasks.
_____ 7 I reaffirm my priorities so that less important things don’t drive out more important things.
_____ 8 I maintain a program of regular exercise for fitness.
_____ 9 I maintain an open, trusting relationship with someone with whom I can share my frustrations.
_____ 10 I know and practise several temporary relaxation techniques such as deep breathing and muscle relaxation.
_____ 11 I maintain balance in my life by pursuing a variety of interests outside of work.
When I approach a typical, routine problem:

12 I state clearly and explicitly what the problem is. I avoid trying to solve it until I have defined it.

13 I generate more than one alternative solution to the problem, instead of identifying only one obvious solution.

14 I keep steps in the problem-solving process distinct; that is, I define the problem before proposing alternative solutions, and I generate alternatives before selecting a single solution.

When faced with a complex or difficult problem that does not have an easy solution:

15 I define a problem in multiple ways. I don’t limit myself to just one problem definition.

16 I unfreeze my thinking by asking lots of questions about the nature of the problem before considering ways to solve it.

17 I think about the problem from both the left (logical) side of my brain and the right (intuitive) side of my brain.

18 I avoid selecting a solution until I have developed many possible alternatives.

19 I have specific techniques that I use to help develop creative and innovative solutions to problems.

When trying to foster more creativity and innovation among those with whom I work:

20 I make sure there are divergent points of view represented or expressed in every complex problem-solving situation.

21 I try to acquire information from individuals outside the problem-solving group who will be affected by the decision, mainly to determine their preferences and expectations.

22 I provide recognition not only for those who come up with creative ideas (the idea champions) but also for those who support others’ ideas (supporters) and who provide resources to implement them (orchestrators).

23 I encourage informed rule breaking in pursuit of creative solutions.

In situations where I have to provide negative feedback or offer corrective advice:

24 I help others recognise and define their own problems when I counsel them.

25 I am clear about when I should coach someone and when I should provide counselling instead.

26 When I give feedback to others, I avoid referring to personal characteristics and focus on problems or solutions instead.

27 When I try to correct someone’s behaviour, our relationship is strengthened.

28 I am descriptive in giving negative feedback to others. That is, I objectively describe events, their consequences and my feelings about them.

29 I take responsibility for my statements and point of view, for example, ‘I have decided’ instead of ‘They have decided’.

30 I identify some area of agreement in a discussion with someone who has a different point of view.

31 I don’t talk down to those who have less power or less information than I.

32 When discussing someone’s problem, I respond with a reply that indicates understanding rather than advice.
In a situation where it is important to obtain more power:

33 I put forth more effort and take more initiative than expected in my work.
34 I am continually upgrading my skills and knowledge.
35 I support organisational ceremonial events and activities.
36 I form a broad network of relationships with people throughout the organisation at all levels.
37 In my work I strive to generate new ideas, initiate new activities and minimise routine tasks.
38 I send personal notes to others when they accomplish something significant or when I pass along important information to them.
39 I refuse to bargain with individuals who use high-pressure negotiation tactics.
40 I avoid using threats or demands to impose my will on others.

When another person needs to be motivated:

41 I determine if the person has the necessary resources and support to succeed in a task.
42 I use a variety of rewards to reinforce exceptional performances.
43 I design task assignments to make them interesting and challenging.
44 I make sure the person gets timely feedback from those affected by task performance.
45 I help the person establish performance goals that are challenging, specific and time bound.
46 Only as a last resort do I attempt to reassign or release a poorly performing individual.
47 I discipline when effort is below expectations and capabilities.
48 I make sure that people feel fairly and equitably treated.
49 I provide immediate compliments and other forms of recognition for meaningful accomplishments.

When I see someone doing something that needs correcting:

50 I avoid making personal accusations and attributing self-serving motives to the other person.
51 I encourage two-way interaction by inviting the respondent to express his or her perspective and to ask questions.
52 I make a specific request, detailing a more acceptable option.

When someone complains about something I’ve done:

53 I show genuine concern and interest, even when I disagree.
54 I seek additional information by asking questions that provide specific and descriptive information.
55 I ask the other person to suggest more acceptable behaviours.

When two people are in conflict and I am the mediator,

56 I do not take sides but remain neutral.
57 I help the parties generate multiple alternatives.
58 I help the parties find areas on which they agree.

In situations where I have an opportunity to empower others:

59 I help people feel competent in their work by recognising and celebrating their small successes.
60 I provide regular feedback and needed support.
61 I provide all the information that people need to accomplish their tasks.
62 I highlight the important impact that a person’s work will have.

When delegating work to others:
63 I specify clearly the results I desire.
64 I specify clearly the level of initiative I want others to take (for example, wait for directions, do part of the task and then report, do the whole task and then report, etc.).
65 I allow participation by those accepting assignments regarding when and how work will be done.
66 I avoid upward delegation by asking people to recommend solutions, rather than merely asking for advice or answers, when a problem is encountered.
67 I follow up and maintain accountability for delegated tasks on a regular basis.

When I am in the role of leader in a team:
68 I know how to establish credibility and influence among team members.
69 I am clear and consistent about what I want to achieve.
70 I build a common base of agreement in the team before moving forward with task accomplishment.
71 I articulate a clear, motivating vision of what the team can achieve along with specific short term goals.

When I am in the role of team member:
72 I know a variety of ways to facilitate task accomplishment in the team.
73 I know a variety of ways to help build strong relationships and cohesion among team members.

When I desire to make my team perform well, regardless of whether I am a leader or member:
74 I am knowledgeable about the different stages of team development experienced by most teams.
75 I help the team avoid groupthink by making sure that sufficient diversity of opinions is expressed in the team.
76 I diagnose and capitalise on my team’s core competencies, or unique strengths.
77 I encourage exceptionally high standards of performance and outcomes that far exceed expectations.

When I am leading change:
78 I usually emphasise a higher purpose or meaning associated with the work I do.
79 I keep track of things that go right, not just things that go wrong.
80 I frequently give other people positive feedback.
81 I work to close abundance gaps—the difference between good performance and great performance.
82 I express gratitude frequently and conspicuously, even for small acts.
83 I know how to get people to commit to my vision of positive change.
84 I know how to unlock the positive energy in other people.
85 I express compassion towards people who are facing pain or difficulty.

EXERCISE 2 Your personal network

1 Working on your own, write down all of your primary contacts—individuals you know personally who can support you in attaining your professional goals. Then begin to explore their secondary connections. Make assumptions about possible secondary connections that can be made for you by contacting your primary connections. For example, through one of your teachers (primary), you might be able to obtain some names of potential employers (secondary). (10–15 min.)

2 Then meet with your partner or small group to exchange information about your primary and secondary networks and to exchange advice and information on how to best use these connections, as well as how you could be helpful to them. (About 5 min. per person; 10–30 min. total, depending on group size.)

3 Add names or types of names to your list based on ideas you get by talking with others in your group. (2–5 min.)

4 Discuss with large group or class, using discussion questions below. (10 min.)

Questions

1 What were some of the best primary sources identified by your group?
2 What were some of the best sources for secondary contacts identified by your group?
3 What are some suggestions for approaching primary contacts?
4 What are some suggestions for approaching secondary contacts, and how is contacting secondary sources different from contacting primary contacts?
5 What did you learn about yourself and others from this exercise?

Taipei is the world’s first wireless city. Wireless Internet access is now available not only inside almost every building, but also in 90 per cent of the city’s public areas, thanks to the installation of 5000 access points on street lamps, traffic lights and subway stations within Taipei’s 700 square kilometres.

The city has also launched ‘Taipei easy call’ to enable people to make calls from their mobile phones via their wi-fi network. The aim is to make calls, especially international calls, cheaper, particularly for schools, government, offices and businesses.

Back in 1999, Mayor Ma Ying-jeou announced a plan to make Taipei a cyber city. But this is hardly unique internationally, and Taiwan had already established a reputation as one of the world’s great developers and producers of hi-tech goods. In Taipei, 88 per cent of households have computers, 77 per cent also have Internet access and 69 per cent of the latter have broadband connections—even though the present costs are higher than in most other East Asian cities, partly because the connections are fully commercial.

The decision was made to focus on making Internet access easier, and the wi-fi construction project was contracted out to a local company, Q-Ware, owned by one of Taiwan’s biggest retail groups.

Q-Ware paid the city 1 per cent of its revenues in the first year of operation, and will from now on pay 3 per cent a year. The payment reflects the city’s contribution in allowing access to its property and is being used for some targeted subsidies to assist access by those—including public schools—who cannot otherwise afford it.

Taipei is now a ‘hot zone’ for wireless access—compared with other countries where small areas in which such Internet access is available are often called ‘hot points’. Taiwan’s economic setting is crucial to this drive for electronic capability. Taiwan is renowned to be the best computer-hardware manufacturer in the world and more than 90 per cent of wireless Internet ports are made here.

The leading international directory compiler of wireless hot spots, US-based JiWire, recently confirmed Taipei as the largest such zone in the world, serving the biggest population. The Intelligent Community Forum in New York declared Taipei the ‘2006 intelligent community of the year’.

Yun-Tsai, Jessica Chou, the chair of the research, development and evaluation commission of the city government—with responsibility for the wireless city concept—says: ‘If you have a notebook, the computer will grab the wireless signal—we call our system WiFly—automatically. It will seek payment information, and you need a credit card to do that online—though residents can get prepaid cards. There are very flexible tariffs for business.’ A day’s access costs about $4, a 30-day subscription $20.

The city government operates 439 high schools, and all now have wireless access. When students enter school, they have to swipe a card (which also gives them access to the subway and buses) that records their entry via WiFly, which automatically emails parents about their safe arrival.

This program has attracted interest from other cities, including New York—though the height of many of the Big Apple’s buildings makes wireless transmission difficult. Shanghai and Tianjin have also sent representatives to Taipei to look at the project.

About 32 per cent of Taipei’s inhabitants have connected to the Internet via wireless. But the new Q-Ware network has only attracted about 50,000 paid-up subscribers since January.

That is not enough for the firm to break even, Chou says. But now, the numbers are building by almost 10,000 a month. Of those surveyed last month, 54 per cent said they were considering subscribing. More aggressive marketing and advertising is probably needed, as many people still don’t know the brand.

Source: Callick, R. 2006, Taipei a hot zone, no wires attached, The Australian, Special Report, Taiwan, October 10, p. 9.

Activities for discussion, analysis and further research

1 Undertake some research to discover what proportion of Australians are connected to the Internet, and what proportion of those are on broadband.

2 Compare the costs of broadband to those of WiFly in Taiwan. How do they compare?

3 Discuss the benefits of having a complete city being a ‘hot zone’ rather than a proliferation of ‘hot spots’.

Source: Yun-Tsai, Jessica Chou, Chair of Research, Development, and Evaluation Commission of the City Government with responsibility for the wireless city concept. "If you have a notebook, the computer will grab the wireless signal—we call our system WiFly—automatically. It will seek payment information, and you need a credit card to do that online—though residents can get prepaid cards. There are very flexible tariffs for business." A day’s access costs about $4, a 30-day subscription $20.

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What is Management?

CHAPTER 1

FURTHER READING


